

REMARKS

Claims 11-13 are pending in the present application. In the Office Action mailed 11/16/2006, claims 11, 12 and 13 were rejected under 35 U.S.C. 103(a) as being unpatentable over Keashley et al. (U.S. Patent No. 6,330,289 B1) in view of Ziv et al. (U.S. Patent No. 5,703,902).

Applicants respectfully respond to this Office Action.

First, Keashley et al. fail to disclose “*when a new waveform is being added* to a plurality of waveforms in the signal, the method comprising *selecting a time offset for said new waveform* by determining which of a possible set of offsets is being used by a lowest number of waveforms in said plurality of waveforms” as recited in Applicants’ claim 11. The Office Action specifically states “Keashley et al. do not disclose explicitly when a new waveform is being added to a plurality of waveforms in the signal.” It follows that Keashley et al. fail to disclose “selecting a time offset for *said new waveform*.” Contrary to the assertion in the Office Action, column 4, lines 32-56 and column 5, lines 1- 4 of Keashley et al. fail to disclose “selecting a time offset for said new waveform.”

Furthermore, Applicants disagree with the assertion in the Office Action that Keashley et al. disclose “selecting a time offset for said new waveform by determining which of a possible set of offsets is being *used by a lowest number of waveforms* in said plurality of waveforms” as recited in claim 11. Specifically, Keashley discloses in column 5, lines 50-65 “[o]utput from the span adapter **40**, which represents a data bit stream ..., is passed through a delay stage, wherein a *relative offset* is added...” and further “[p]referably, the total delay added to each channel by its *respective delay block is unique* for each clocked data stream...” and finally, “[p]referably, in order to ease implementation, the delay added between any two consecutive channels (delay stage) is *the same*.” Keashley fails to teach or even suggest “determining which of a possible set of offsets is *being used by a lowest number of waveforms* in said plurality of waveforms” as disclosed by Applicants.

Finally, in the Office Action, impermissible hindsight based on Applicants’ disclosure is applied to combine the teachings of Keashley et al. and Ziv et al. In the Office Action, it is asserted that Ziv et al. disclose the limitation “when a new waveform is being added to a

plurality of waveforms in the signal.” The Office Action cites Ziv et al. column 15, lines 11-21, suggesting “*assigned a new signal, each new signal occupies a unique time offset*” discloses “when a new waveform is being added to a plurality of waveforms in the signal” as disclosed by Applicants.

Ziv et al. disclose in FIG. 2, “base station receiver has at least one demodulation element which utilizes at least one lock detector apparatus in the demodulator unit to assist in signal detection ... searcher elements 202A1...202N also scan a set of time offsets around the nominal arrival of the signal in search of multipath signals that have developed ... [o]peration of the lock detection method begins with a system reset, typically either upon system startup or when the corresponding demodulator element is assigned a new signal. In either case, each new signal occupies a unique time offset.” In other words, the time offset referred to in Ziv et al. relates to arrival time of signals from different subscriber units to the demodulation elements of FIG. 2. In Ziv et al., the “demodulation elements...demodulate the received signal so as to produce data symbols that are combined in symbol combiner **208**. Keashley et al. disclose improving the performance of a base station multi-channel power amplifier (MCLPA) by reducing intersymbol correlation. In Keashley et al., “the system produces a number of bit stream signals to be modulated into a number of symbol stream signals, and includes means for introducing an offset/time delay to the symbol stream signals to avoid correlation...the system avoids multiple symbols going into transition at the same time... [t]his reduces the peak power requirements placed on the MCLPA.” (Abstract.)

Whereas Keashley et al. disclose introducing an offset/time delay to avoid correlation of symbol transitions in the MCLPA, Ziv et al. disclose different arrival times of signal paths assigned to the different demodulation elements, and thus the use of a time de-skew element **342** to delay the output (of the demodulation element) so that each demodulation element provides synchronized symbol data (to combiner **208**) with relation to the other demodulation elements.

The cited references alone, or in combination, fail to disclose Applicants' claimed invention as recited in claims 11-13, and the Office Action fails to show a motivation to combine the cited references.

REQUEST FOR ALLOWANCE

In view of the foregoing, Applicants submit that all pending claims in the application are patentable. Accordingly, reconsideration and allowance of this application are earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Respectfully submitted,

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